

REMARKS

This paper is responsive to a Non-Final Office Action dated April 8, 2004. Claims 1-30 were examined. Claims 1, 2, 4-7, 8-10, 13, 14, 17, 18, 21-23, and 27-30 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,838,681 to Bonomi et al. Claims 3, 11, 12, 19, 20, and 24-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bonomi. Claims 15 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bonomi in view of U.S. Patent No. 5,577,035 to Hayter et al.

Art Rejections Under 35 U.S.C. § 102

Claims 1, 2, 4-7, 8-10, 13, 14, 17, 18, 21-23, and 27-30 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Bonomi. Regarding claim 1, Applicants respectfully maintain that Bonomi, alone or in combination with other references of record, fails to teach or suggest

subsequently allocating a second group of one or more of the resources for the particular time period in accordance with regular requests, the first and second group of resources being mutually exclusive,

as recited by claim 1. The Office Action relies on col. 12, lines 61-66 of Bonomi to supply this teaching. These portions of Bonomi teach “[d]uring the frames in which there are no data cells from that port, the unused time slots corresponding to that port’s time position within the frames may be used for the cells from other ports, in effect time division multiplexing a number of ports into the same time slot position.” Bonomi fails to distinguish between first requests for resources and regular requests, which are described at least at page 7, line 24-page 8, line 2 of the Application. Bonomi teaches time division multiplexing cells for multiple ports into one port. These cells do not overlap time slots and are not allocated the particular time period. The cells from one port of Bonomi are inserted into a time slot for a second port, after cells have already

been allocated to the second port. The cells are allocated to the same resource, not mutually exclusive resources, as required by claim 1. Thus, Bonomi fails to teach or suggest the limitations of claim 1. Accordingly, Applicants respectfully request the rejection of claim 1, and all claims dependent thereon, be withdrawn.

Regarding claim 8, Applicants respectfully maintain that Bonomi alone or in combination with other references of record, fails to teach or suggest

an arbiter coupled to receive first requests for transfers from one or more of the sources to one or more of the targets during a time slot on the data transport medium and coupled to receive regular requests from the sources for transfers from one or more of the sources to one or more of the targets during the time slot, the arbiter allocating the targets to the sources in accordance with the first requests and then in accordance with the regular requests,

as recited by claim 8. Bonomi teaches at col. 8, line 61-col. 9, line 4 allocating switch capacity according to a predetermined schedule or flexibly allocating switch capacity according to total aggregate switch capacity. However, Bonomi fails to distinguish between first requests for transfers and regular requests for transfers and allocating targets according to first requests and then according to regular requests for transfers during the same time slot, described at least at page 7, line 24-page 8, line 2, and beginning at page 13, line 11 of the Application and as required by claim 8. Thus, Bonomi fails to teach or suggest the limitations of claim 8. Accordingly, Applicants respectfully request the rejection of claim 8, and all claims dependent thereon, be withdrawn.

Regarding claim 21, Applicants respectfully maintain that Bonomi alone or in combination with other references of record, fails to teach or suggest

means for allocating resources by giving requests represented in the precalculated schedule priority over the regular requests in allocating resources,

as recited in claim 21. Bonomi teaches at col. 8, line 61-col. 9, line 4 allocating switch capacity according to a predetermined schedule or flexibly allocating switch capacity according to total aggregate switch capacity. The Office Action states that the source of Bonomi “given first allocation can be said to have the ‘precalculated schedule’ and all of the sources allocated later are the result of ‘regular’ requests.” Applicants respectfully disagree. The time division multiplexing of a number of ports taught by Bonomi inserts cells having predetermined schedules from different ports into frames of a single port. (FIG. 7, 8, 9, col. 11, line 62-col. 16, line 40) However, Bonomi fails to distinguish between requests represented in a precalculated schedule priority and regular requests, and giving the requests represented in the precalculated schedule priority over the regular requests described at least at page 7, line 24-page 8, line 2, and beginning at page 13, line 11 of the Application, and as required by claim 21. Thus, Bonomi fails to teach or suggest the limitations of claim 21. Accordingly, Applicants respectfully request the rejection of claim 21, and all claims dependent thereon, be withdrawn.

Regarding claim 23, Applicants respectfully maintain that Bonomi alone or in combination with other references of record, fails to teach or suggest

during a first arbitration phase, reserving a first portion of the resources for a particular time period on the network in response to requests for scheduled transfers, and during a second arbitration phase allocating a second portion of the resources in response to regular requests,

as recited in claim 23. Bonomi teaches at col. 8, line 61-col. 9, line 4 allocating switch capacity according to a predetermined schedule or flexibly allocated according to total

aggregate switch capacity. However, Bonomi fails to distinguish between requests represented for scheduled transfers and regular requests and allocating resources during first and second arbitration phases, respectively, described at least at page 7, line 24-page 8, line 2, and beginning at page 13, line 11 of the Application and as required by claim 23. Thus, Bonomi fails to teach or suggest the limitations of claim 23. Accordingly, Applicants respectfully request the rejection of claim 23, and all claims dependent thereon, be withdrawn.

Art Rejections Under 35 U.S.C. § 103

Claims 3, 11, 12, 19, 20, 24-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bonomi. Regarding claim 3, the Office Action states that “Bonomi et al. does not expressly disclose splitting the CPU into two parts, where one part handles one type of request and the other part handles another kind of request. However, it would have been obvious to a person of ordinary skill in the art at the time of the invention to split the CPU into two different functional parts in order to handle the two different types of requests.” Applicants respectfully disagree.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of the ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all claim limitations.

See MPEP § 2143. Merely stating that Bonomi can be modified to operate similarly to the claimed invention, without providing a prior art reference (or references when combined) that teaches or suggests the claimed invention, is not sufficient to establish *prima facie* obviousness. See MPEP §2143.01.

However, assuming *arguendo* that the references of record teach splitting the CPU into two different functional parts to handle two different types of requests, this teaching fails to teach or suggest

receiving the first requests for the first group
of resources in a centralized scheduler, the

centralized scheduler residing in one of a plurality of requesters on the communication network, and receiving the regular requests at a centralized arbiter separate from the centralized scheduler,

as recited by claim 3. Accordingly, Applicants respectfully request the rejection of claim 3 be withdrawn.

Regarding claim 11, the Office Action states that “Bonomi et al. does not expressly disclose where the requests are preallocation requests for pre-allocated slots. However, it would have been obvious to allow pre-allocation requests to request for pre-allocated slots.” Merely stating that Bonomi can be modified to operate similarly to the claimed invention, without providing a prior art reference (or references when combined) that teaches or suggests the claimed invention, is not sufficient to establish *prima facie* obviousness. See MPEP §2143.01. Accordingly, Applicants respectfully request the rejection of claim 11 be withdrawn.

Regarding claim 12, the Office Action states that “Bonomi et al. does not expressly disclose implementing the scheduling in software; however, this would have been obvious to one of ordinary skill in the art.” Assuming *arguendo* that the references of record teach implementing the scheduling in software, this teaching fails to teach or suggest

the centralized scheduler is implemented as software executable on a node coupled as one of the sources on the network system,

as recited in claim 12. Accordingly, Applicants respectfully request the rejection of claim 12 be withdrawn.

Regarding claim 19, the Office Action states that “Bonomi et al. does not expressly disclose receiving a vector of both the pre-allocated requests and the regular request; however, it would have been obvious to a send [sic] vector to the CPU of

Bonomi et al. with that type of information.” Merely stating that Bonomi can be modified to operate similarly to the claimed invention, without providing a prior art reference (or references when combined) that teaches or suggests the claimed invention, is not sufficient to establish *prima facie* obviousness. See MPEP §2143.01. Accordingly, Applicants respectfully request the rejection of claim 19 be withdrawn.

Regarding claim 20, the Office Action states that “Bonomi et al. does not expressly disclose where the source receive [sic] the preallocated requests from a scheduling device of the preallocated resources; however, it would have been obvious to do so.” Merely stating that Bonomi can be modified to operate similarly to the claimed invention, without providing a prior art reference (or references when combined) that teaches or suggests the claimed invention, is not sufficient to establish *prima facie* obviousness. See MPEP §2143.01. Accordingly, Applicants respectfully request the rejection of claim 20 be withdrawn.

Regarding claim 24, the Office Action states that “Bonomi et al. does not expressly disclose splitting the CPU into two parts, where one part handles one type of request and the other part handles another kind of request. However, it would have been obvious to a person of ordinary skill in the art at the time of the invention to split the CPU into two different functional parts in order to handle the two different types of requests.” Applicants respectfully disagree. Merely stating that Bonomi can be modified to operate similarly to the claimed invention, without providing a prior art reference (or references when combined) that teaches or suggests the claimed invention, is not sufficient to establish *prima facie* obviousness. See MPEP §2143.01. However, assuming *arguendo* that the references of record teach splitting the CPU into two different functional parts to handle two different types of requests, this teaching fails to teach or suggest that

a first portion of the resources for a particular time period is reserved in a scheduler separate from an arbiter, the arbiter allocating the second portion, the scheduler providing a

schedule to the arbiter indicating the reserved first portion,

as recited by claim 24. Accordingly, Applicants respectfully request the rejection of claim 24 be withdrawn.

Regarding claim 26, the Office Action states that “Bonomi et al. does not expressly disclose where there will be conflicts; however, it would have been obvious that conflict could occur if multiple resources vie for the same time slot at the same time.” Merely stating that Bonomi can be modified to operate similarly to the claimed invention, without providing a prior art reference (or references when combined) that teaches or suggests the claimed invention, is not sufficient to establish *prima facie* obviousness. See MPEP §2143.01. However, assuming arguendo that the references of record teach that there will be conflicts, this teaching fails to teach or suggest

the scheduler providing a schedule to the arbiter indicating the reserved first portion where the schedule has conflicts in requests for the first portion of resources,

as required by claim 26. Accordingly, Applicants respectfully request the rejection of claim 26 be withdrawn.

Claims 15 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bonomi in view of Hayter. Claims 15 and 16 depend from allowable claims and Applicants believe these claims are allowable for at least this reason. Accordingly, Applicants respectfully request the rejection of claims 15 and 16 be withdrawn.

Claim 12 and 17 have been amended to correct a typographical error.

Claim 22 has been amended to provide proper antecedent basis.

New claims 31-37 are added. Claims 31-37 are believed to be patentable over the art of record.

In summary, claims 1-37 are in the case. All claims are believed to be allowable over the art of record, and a Notice of Allowance to that effect is respectfully solicited. Nonetheless, if any issues remain that could be more efficiently handled by telephone, the Examiner is requested to call the undersigned at the number listed below.

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Respectfully submitted,



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